

**WHAT IS CLAIMED IS:**

1           1.   Apparatus for cleaning particulate material from a  
2   moving web in an electrostatic printer/copier comprising:

3               (a)   a web-cleaning cartridge having a web-cleaning  
4               component adapted to contact a surface of a moving web and to  
5               remove particles therefrom; and

6               (b)   a support bracket/backup shoe assembly for  
7               selectively positioning said web-cleaning cartridge in a web-  
8               cleaning position in which said web-cleaning component  
9               pressingly engages said surface, said support bracket/backup  
10              shoe assembly comprising (i) a bracket housing for releasably  
11              supporting said web-cleaning cartridge, and (ii) a backup shoe  
12              assembly having a hard surface adapted to contact the web  
13              surface opposite that contacted by said web-cleaning component  
14              and to resist the force exerted by said web-cleaning component,  
15              said backup shoe being mounted at a fixed location along said  
16              path, and said bracket housing being pivotally mounted on said  
17              backup shoe for movement between an operative position in  
18              which said web-cleaning component exerts a substantially  
19              uniform pressure on said web, and a service position in which  
20              said web-cleaning cartridge is sufficiently spaced from the web  
21              to enable the removal of said web-cleaning cartridge from said  
22              bracket housing.

1           2.   The apparatus as defined by claim 1 wherein said bracket  
2   housing defines a cavity for receiving said web-cleaning cartridge,  
3   said cavity having features that cooperate with features on said web-

4 cleaning cartridge to assure a desired orientation of said web-cleaning  
5 cartridge in said cavity.

1 3. The apparatus as defined by claim 1 wherein said hard  
2 surface comprises a wear-resistant and electrically conductive plate.

1 4. The apparatus as defined by claim 1 wherein backup shoe  
2 assembly comprises a flange member having a slot formed therein for  
3 releasably receiving a mounting feature on said bracket housing that  
4 provides a pivotal connection between said bracket member and said  
5 backup shoe assembly.

1 5. The apparatus as defined by claim 4 further comprising  
2 means for limiting the pivotal movement between said bracket  
3 housing and said backup shoe assembly.

1 6. The apparatus as defined by claim 4 wherein said  
2 mounting feature is adapted to be readily removed from said slot to  
3 enable said bracket housing and a web-cleaning cartridge supported  
4 thereby to be de-coupled from said backup shoe assembly.

1 7. Apparatus for releasably supporting a replaceable web-  
2 cleaning cartridge in a web-utilization device for movement between  
3 an operative position in which one or more web-cleaning elements of  
4 said cartridge contact a moving web surface and act to remove  
5 particulate material from said surface, and a service position in which  
6 the cartridge is sufficiently spaced from said web surface to facilitate  
7 service and/or replacement of the cartridge, said apparatus comprising:

8 (a) a cartridge-support bracket/backup shoe assembly  
9 including (a) a bracket sub-assembly having a frame defining a  
10 cavity for releasably receiving and supporting a web-cleaning  
11 cartridge;

(b) a backup shoe sub-assembly adapted having a hard surface to contact a web surface opposite that contacted by the cleaning element(s) of the web-cleaning cartridge to provide a resistance to pressure exerted on the web by the clean element(s);

(c) a first mount for supporting the backup shoe sub-assembly at a fixed location adjacent the path of movement of the web; and

(d) a second mount for pivotally connecting an end of the bracket sub-assembly to the backup shoe sub-assembly to enable the cartridge to move between its operative and service positions; and (e) a latch for releasably latching the two sub-assemblies in a position in which the cartridge is in its operative position.

8. The apparatus as defined by claim 7 wherein said cavity has features that cooperate with features on said web-cleaning cartridge to assure a desired orientation of said web-cleaning cartridge in said cavity.

9. The apparatus as defined by claim 7 wherein said hard surface comprises a wear-resistant and electrically conductive plate.

10. The apparatus as defined by claim 7 wherein said second mount comprises a slot/tab assembly which enables the cartridge-supporting bracket to be physically de-coupled from the shoe assembly, thereby facilitating cartridge or web service and/or replacement.